

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP01/04222

A. CLASSIFICATION OF SUBJECT MATTER  
Int.Cl.<sup>7</sup> G01N21/27 C23C18/18 G01N35/02

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl.<sup>7</sup> G01N21/00-21/61 G01N35/02 C23C18/18

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1992-1996	Toroku Jitsuyo Shinan Koho	1994-2001
Kokai Jitsuyo Shinan Koho	1971-2001	Jitsuyo Shinan Toroku Koho	1996-2001

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
WPI/L EPAT

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 63-121668 A (Filtrol Corporation), 25 May, 1988 (25.05.88), Full text & US 4699081 A	1-7
Y	JP 8-334463 A (Kao Corporation), 17 December, 1996 (17.12.96), Full text (Family: none)	4-7
Y	JP 11-340186 A (Dainippon Screen MFG. Co., Ltd.), 10 December, 1999 (10.12.99), Full text (Family: none)	5-7
Y	JP 10-90275 A (Hitachi, Ltd.), 10 April, 1998 (10.04.98), Full text (Family: none)	1-3, 5-7
Y	JP 10-267935 A (Olympus Optical Company Limited), 09 October, 1998 (09.10.98), Full text (Family: none)	1-3, 5-7

☒ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

\* Special categories of cited documents:  
 "A" document defining the general state of the art which is not considered to be of particular relevance  
 "E" earlier document but published on or after the international filing date  
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 "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone  
 "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art  
 "&" document member of the same patent family

Date of the actual completion of the international search  
24 August, 2001 (24.08.01)

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Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

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## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 8-15266 A (Nippon Tectron Co., Ltd.), 19 January, 1996 (19.01.96), Full text (Family: none)	6, 7
Y	Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No.11106/1990 (Laid-open No.104856/1991) (Nippon Tectron Co., Ltd.), 30 October, 1991 (30.10.91), Full text (Family: none)	6, 7
Y	JP 48-100181 A (Hitachi, Ltd.), 18 December, 1973 (18.12.73), Full text (Family: none)	6, 7
Y	JP 55-104469 A (Shipley Company Inc.), 09 August, 1980 (09.08.80), Full text & US 4324589 A	1-3, 7
Y	Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No.098691/1988 (Laid-open No.020149/1990) (Kabushiki Kaisha Chuo Kenkyusho), 09 February, 1990 (09.02.90), Full text (Family: none)	1, 7
Y	JP 2-110348 A (Fujitsu Limited), 23 April, 1990 (23.04.90), Full text (Family: none)	1-3
Y	JP 48-60694 A (Kabushiki Kaisha Union Giken), 25 August, 1973 (25.08.73), Full text (Family: none)	1-3
Y	JP 6-41764 A (Ishihara Chem. Co., Ltd.), 15 February, 1994 (15.02.94), Full text (Family: none)	1-3
Y	JP 10-142143 A (Kabushiki Kaisha Chuo Kenkyusho), 29 May, 1998 (29.05.98), Full text (Family: none)	1-3